# Draft Proposed Plan

## Operable Unit 10– Building 68
## Defense Supply Center Richmond
## Richmond, Virginia

**July 2006**

**DEFENSE LOGISTICS AGENCY ANNOUNCES**
**OU 10 PROPOSED PLAN**

## 1.0 INTRODUCTION

This Proposed Plan identifies the preferred alternative for protecting human health and the environment from impacted soil at former Building 68, Defense Supply Center Richmond (DSCR), Richmond, Virginia. This Proposed Plan provides the rationale for selecting this alternative and it summaries the alternatives evaluated. The former Building 68 footprint and surrounding impacted soils have been designated as Operable Unit (OU) 10.

This Proposed Plan is issued by the Defense Logistics Agency (DLA), the lead federal agency for remedial actions at DSCR, in agreement with the United States Environmental Protection Agency (USEPA) Region 3, the lead regulatory agency, as well as the Commonwealth of Virginia, Department of Environmental Quality (VDEQ), the support regulatory agency.

DLA is issuing this Proposed Plan for public comment and participation in accordance with Section 117(a) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, as amended, and Sections 300.430(f)(2) and (f)(3) of the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR Part 300).

### DATES TO REMEMBER

**PUBLIC COMMENT PERIOD:**
**X – Y, 2006**
DLA invites you to participate during the public comment period by submitting comments on the OU 10 Proposed Plan.

**PUBLIC MEETING:**
**Z, 2006 - 7:30 p.m.**
DLA will hold a public meeting to explain the Proposed Plan, alternatives evaluated in the Feasibility Study, and additional evaluations summarized in the Feasibility Study Addendum. Oral and written comments will also be accepted at the meeting. The meeting will be held at the:

Bensley Park and Community Center
2900 Drewrys Bluff Rd
Richmond, Virginia 23237

**For more information, see the Administrative Record at the following location:**

Chesterfield Public Library
Central Branch – Local History Dept.
9501 Lori Road
Chesterfield, Virginia 23832
Phone: (804) 748-1603

**Monday - Thursday**
Hours: 10:00 a.m. – 9:00 p.m.
**Friday, Saturday**
Hours: 10:00 a.m. – 5:30 p.m.
**Closed Sunday**

or online at http://www.adminrec.com/DLA.asp

**Send written comments postmarked no later than Y, 2006 to any of the following:**

Defense Supply Center Richmond
Public Affairs Officer (DSCR-DSA)
Ms. Kim Turner
8000 Jefferson Davis Highway
Richmond, Virginia 23297-5000
(804) 279-3952
email:Kim.Turner@dla.mil
Fax (804) 279-6084

Virginia Department of
Environmental Quality
Office of Remediation Programs
Mr. James Cutler
629 East Main Street, 4th Floor
Richmond, Virginia 23219
email: jlcutler@deq.virginia.gov
(804) 698-4498

U.S. Environmental Protection Agency
Community Involvement Section
Ms. Trish Taylor
1650 Arch Street
Philadelphia, Pennsylvania 19103
email: taylor.trish@epa.gov
(215) 815-5539

*Note: Selected environmental terms are defined in the glossary at the end of this document.*

This Proposed Plan summarizes information from the OU 10 Remedial Investigation (RI), Feasibility Study (FS), and FS Addendum reports as well as other documents. DLA, USEPA, and VDEQ encourage the public to review these documents to gain a more complete understanding of the DSCR installation and the CERCLA activities that have been conducted for this OU.

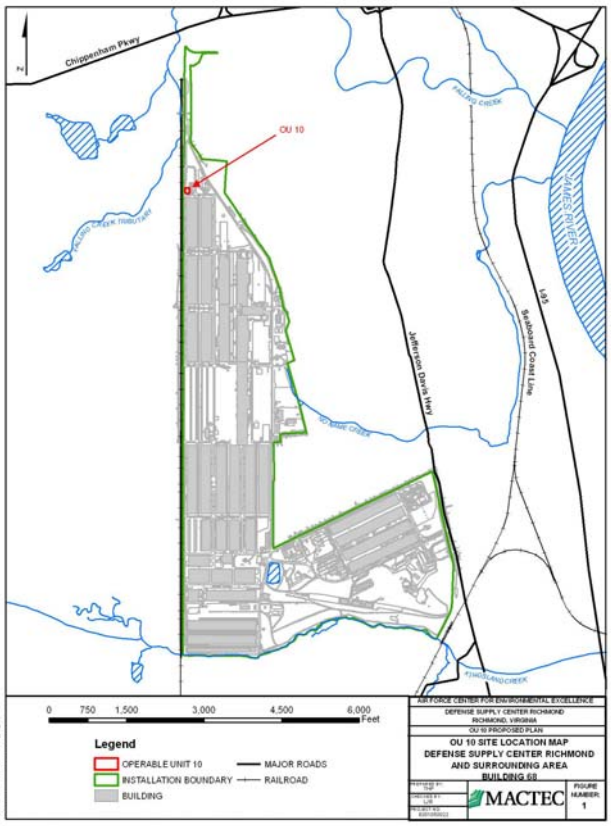
This Proposed Plan has been prepared to summarize DLA's and USEPA's preferred remedial action alternative at OU 10. The Proposed Plan is organized into the following sections:

1.0 Introduction
2.0 Site Background
3.0 Site Characteristics
4.0 Risk Summary
5.0 Remedial Action Objectives
6.0 Response Action
7.0 Summary of Remedial Action Alternatives
8.0 Evaluation of Alternatives
9.0 Summary of the Preferred Alternative
10.0 Community Participation

## 2.0 SITE BACKGROUND

DSCR is a federal installation (Figure 1) of approximately 650 acres located in Chesterfield County, Virginia, about 8 miles south of the City of Richmond. The property is owned by the U.S. Department of the Army and is occupied and operated by DLA. DSCR was built in 1941 as two separate facilities: the Richmond General Depot and the Richmond Holding and Reconsignment Point. With the creation of the Military General Supply Agency in 1962, the facilities were merged to become the Defense General Supply Center. DSCR, DLA's aviation, supply, and demand-chain manager, received its current name in 1996.

DSCR is a major industry in Chesterfield County. Land use in areas surrounding DSCR is primarily residential but also includes retail stores and light industry. The areas to the northeast, east, and south of DSCR have been developed as both single-family and multi-family housing. Water is supplied to residences and businesses by the City of Richmond water supply




system; however, some homes in the DSCR vicinity still have private wells (*Final Updated Residential Well Survey*, Law 2002), which are used primarily for landscape irrigation.

DSCR was nominated for the CERCLA National Priorities List (NPL) in 1984 and was formally added to the NPL in 1987. This action occurred as a result of DSCR receiving a Hazard Ranking System score that made it eligible for the list.

In 1990, DLA, USEPA, and VDEQ signed a Federal Facilities Agreement that established DLA as the lead federal agency responsible for evaluating, selecting, and executing necessary, feasible, and reasonable remedial actions to assure protection of human health and the environment from releases at DSCR. The Environmental Restoration Program at DSCR is being conducted under CERCLA, as amended, and has been organized into 13 OUs, including 9 source (soil) OUs, 3 groundwater OUs, and

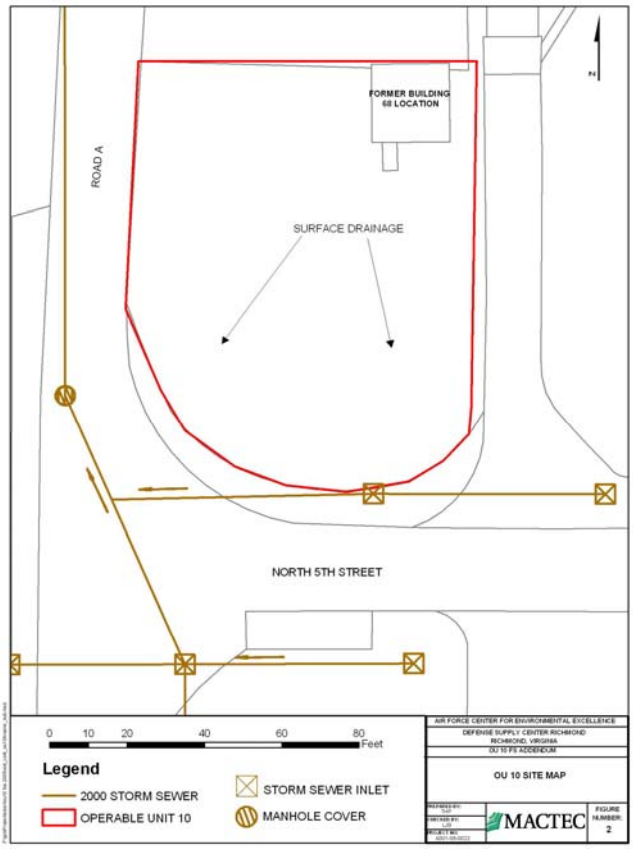
1 groundwater interim action OU. The 13 OUs are as follows:

OU 1 – Open Storage Area
OU 2 – Area 50 Source Area
OU 3 – National Guard Source Area
OU 4 – Fire Training Source Area
OU 5 – Acid Neutralization Pits Source Area
OU 6 – Area 50/Open Storage Area/National Guard Area Groundwater
OU 7 – Fire Training Area Groundwater
OU 8 – Acid Neutralization Pits Area Groundwater
OU 9 – Interim Action for OU 6
**OU 10 – Former Building 68**
OU 11 – TS 202
OU 12 – Former Building 112
OU 13 – Polycyclic Aromatic Hydrocarbon (PAH) Area

Final Records of Decision (RODs) have been issued for OUs 1, 3, 4, 5, and 12. Final remedial actions have been implemented at OUs 1, 3 and 5. The ROD for OU 5 called for no further action. A final ROD with an interim remedy was issued for OU 9; interim remedial action for OU 6 groundwater was implemented as OU 9. A removal action has been completed at OU 4. A ROD for OU 8 is being drafted.

Since 2000, DSCR has been integrating investigations and FSs for source and groundwater OUs as part of a comprehensive, installationwide completion strategy that recognizes the interdependence of soil and groundwater impacts. This strategy involves eliminating or reducing continuing sources (i.e., through removal or treatment), controlling constituent movement in the environment, and controlling exposure to compounds that could pose an unacceptable human health or ecological risk. Decisions made under this strategy define performance criteria for DLA to meet remedial action objectives (RAOs) in an effective and efficient manner.

OU 10 is in the northern part of DSCR at the intersection of Road A and North 5th Street, within Defense Depot Richmond Virginia (a restricted DSCR area enclosed by fencing and locked or guarded gates), as shown in Figure 2. Surface drainage from OU 10 is south/southwest to the storm sewer system, which eventually discharges to Falling Creek Tributary northwest of the installation.




From 1954 to 1972, Building 68 was used for pest control operations and as a storage site for pesticides that were scheduled for disposal. The building was a brick structure with approximate dimensions of 20 feet by 20 feet and was surrounded by a gravel lot. Beginning in 1972, this gravel lot was used for storage of electrical transformers and as a parking area for trucks. A transformer soil spill containing polychlorinated biphenyls (PCBs) occurred in July 1980. Stained surface soils in the area of the oil release were subsequently removed and disposed of off-installation. The building was then used to temporarily house 55-gallon drums containing impacted soils, PCB-containing fluids, and protective clothing derived during the PCB spill remediation. The building was subsequently used to store weigh station items for Building 205. Building 68 was demolished during December 2002. The entire OU 10 surface area is covered by gravel, and sparse vegetation is between the gravel.

The Proposed Plan for OU 10 is to implement all remedial actions necessary for reliable long-term protection of current and future receptors potentially impacted by this OU and to complete remedial actions in a reasonable time for a reasonable cost to taxpayers.

## 3.0 SITE CHARACTERISTICS

The first soil assessment was a pesticide monitoring study conducted in 1986. Total pesticide concentrations in the three samples collected ranged from 3 to 117 milligrams per kilogram (mg/kg). One sample had PCBs of 8 mg/kg. Pesticide and PCB concentrations from a storm sewer sediment sample were 0.32 and 0.21 mg/kg, respectively.

Ten surface soil samples were collected in 1992. Semivolatile organic compounds were at or below approximately 8 mg/kg, pesticides were at or below 1.1 mg/kg, and PCBs were not detected.

In 1995, a remedial investigation was initiated. Four groundwater and 20 additional soil samples were collected as part of the RI. Soil samples were collected at depths up to 5 feet below ground surface (bgs). In soil, four metals (aluminum, arsenic, iron, and manganese), five PAHs benzo(a)anthracene, benzo(a)pyrene, benzo(b) fluoranthene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene), and one pesticide (dieldrin) were found above residential soil screening values (USEPA Region 3 Risk-based Concentrations [RBCs]) and maximum site background concentrations. The maximum PAH concentration detected was 17 mg/kg, and the maximum pesticide was <1 mg/kg. In groundwater, eight metals (aluminum, antimony, arsenic, chromium, cobalt, iron, manganese, and vanadium) exceeded tapwater RBCs.

Surface water and sediments from Falling Creek Tributary were sampled in 1995 and 2000. Only aluminum exceeded ambient water quality criteria in surface water, but OU 10 was not thought to be the source because upstream concentrations were higher. Two metals, 14 PAHs, and 4 pesticides in sediment exceeded residential soil RBCs or ecological criteria; however, only PAHs were above DSCR background soil concentrations.

Groundwater assessments conducted in 2001 and 2002 indicated flow to the northeast. Only antimony, manganese, and chloroform were detected above background concentrations and tapwater RBCs. However, manganese is an essential nutrient, and ingestion of 2 liters of water per day with the maximum concentration detected would be within acceptable ranges based on human health. Antimony and chloroform were well below drinking water standards. Therefore, groundwater was not determined to be adversely impacted.

A Human Health Baseline Risk Assessment (HHBRA) was conducted in 1998. The estimated carcinogenic risk to a hypothetical future resident from soil and groundwater exposure combined ($4\times10^{-4}$) marginally exceeded DSCR's acceptable on-installation risk level $1\times10^{-4}$. PAHs and arsenic were the primary contributors to carcinogenic risk in soil, and arsenic was the primary contributor in groundwater, although arsenic was well below the federal drinking water maximum contaminant level (MCL). However, future residential site use is not anticipated and is not consistent with DSCR's mission.

Estimated risk to current and future on-site workers and recreational waders was acceptable. Noncarcinogenic hazards for future construction workers (2), future adult residents (9), and a future residential child (20) were above the USEPA departure value of 1. Noncarcinogenic impacts were acceptable for current and future on-site workers.

Ecological risks were considered low. Little habitat is available for terrestrial receptors given the industrial nature of the installation. In addition, the entire OU 10 surface area is covered by gravel with sparse vegetation between the gravel. Sediments in storm drains represented the maximum exposure potential for ecological receptors in Falling Creek Tributary. Benthic macroninvertebrate surveys showed no impairment at the location closest down stream from the storm sewer outfall. Food web modeling indicated that adverse impacts were unlikely for wildlife associated with Falling Creek Tributary.

Conditions at OU 10 were considered protective of human health and the environment if the land use remained nonresidential. Institutional controls were recommended to restrict access and prevent residential exposure in the Final Feasibility Study (FFS) Report (2000).

In response to USEPA comments received in May 2002, additional studies were performed, including an HHBRA of the Creeks Adjacent to DSCR and a Three-year Creek Monitoring Program (CMP). These reports have been or will be finalized in 2006 to incorporate agency comments.

The purpose of the Creeks HHBRA was to determine whether constituents related to historical installation activities and detected in surface and sediment posed an unacceptable human health risk. In Falling Creek Tributary surface water, four PAHs [benzo(a)pyrene, benzo(b)fluoranthene, chrysene, and indeno(1,2,3-cd)pyrene] were identified as constituents of potential concern (COPCs) based Virginia Surface Water Quality Standards (VWQSs) or Virginia MCLs and tapwater RBCs (where VWQSs or MCLs were not available). One PAH, benzo(a)pyrene, was identified as a COPC in sediment based on comparison to residential soil RBCs (with a hazard index [HI] = 1 and a carcinogenic risk level of $1\times10^{-5}$).

Noncarcinogenic hazards were not evaluated because toxicity data for these COPCs are based on carcinogenic effects. The potential cancer risk ($6\times10^{-6}$ which represents a 6 in 1,000,000 probability for adverse effects) for children and adults combined was above the off-installation risk goal of $1\times10^{-6}$; however, the risk associated with potential exposure to surface water is due to infrequently detected constituents (1 detection in 24 samples), and the risk associated with sediments is considered to be an overestimate due to minor amounts of or lack of sediment observed in the creek bed. No further action was recommended to protect human health from potential installation impacts to Falling Creek Tributary.

A CMP was conducted from 2001 to 2004. Monitoring included Falling Creek Tributary, which receives stormwater discharge from OU 10. PAHs exceeded sediment screening levels in upstream as well as downstream locations and were associated with stormwater runoff. Levels detected were not expected to pose an unacceptable risk to potential ecological receptors. No adverse impacts to Falling Creek Tributary from DSCR activities were indicated based on bottom-dwelling (benthic) community abundance, species diversity, growth rates, or reproduction. Overall, creek communities were diverse, numerous, and well-balanced. The presence of fish and amphibians was another indicator that Falling Creek Tributary provides suitable habitat and is a productive stream.

## 4.0 RISK SUMMARY

The HHBRA completed in conjunction with the RI was revised and submitted in the FFS Addendum Report (2006). The HHBRA was updated because land use at the installation is expected to remain industrial, and a residential exposure scenario was originally considered. An on-site residential exposure scenario is no longer a reasonable possibility, according to the DLA master plan.

The revised HHBRA considered current and future on-site industrial workers and future on-site construction workers. There is no current construction at OU 10. Potential soil exposure to all worker receptors considered incidental ingestion, dermal contact, and dust inhalation. Current industrial workers could be exposed to shallow soils, and future industrial workers could be exposed to surface and subsurface soils. In addition to surface and subsurface soil exposure, future construction workers could ingest or come into dermal contact with groundwater during trench excavation.

For soils, a conservative screening process was performed using industrial soil RBCs. Soil COPCs based on direct contact were arsenic, iron, dieldrin, benzo(a)anthracene, benzo(a)pyrene, benzo(b) fluoranthene, and indeno(1,2,3-cd)pyrene. Soil COPCs that exceeded soil-to-groundwater screening levels (USEPA Region 3 generic soil leaching levels) were shown to pose no unacceptable risk to groundwater using an OU-specific leaching model. All constituents had predicted concentrations below drinking water standards.

Five groundwater constituents [antimony, manganese, chloroform, tetrachloroethene, and

bis(2-ethylhexyl)phthalate] exceeded Region 3 tapwater RBC screening criteria. Given a groundwater depth of 15 to 25 feet bgs, on-site receptors would not be expected to come into direct contact with these COPCs. Since concentrations of these constituents on the installation were less than Virginia MCLs, groundwater impacts were minimal. Therefore, transport off the installation to the nearest residential receptor (approximately 950 feet east) was considered unlikely and an incomplete exposure pathway. In addition, residences are connected to the municipal water supply system.

Volatile organic compounds (VOC) concentrations were below USEPA targets for indoor air both on and off the installation. Therefore, this pathway was considered to be insignificant. No COPCs in groundwater exceeded VDEQ inhalation screening values for a construction worker in a trench.

The risk characterization evaluated both noncarcinogenic and carcinogenic effects. The HI, which estimates systemic or noncarcinogenic risk, was at or below 1 for all receptors (current and future industrial workers and future construction workers). A cumulative HI of 1 has been established as the acceptable benchmark for DSCR. The majority of noncarcinogenic risk was due to arsenic and iron in soil. Carcinogenic risk was at or below $1\times10^{-4}$ for all receptors (current and future industrial workers and future construction workers). The majority of risk was due to arsenic in soil. The DSCR carcinogenic risk goal of $1\times10^{-4}$ was established for receptors on the installation. Therefore, no unacceptable noncarcinogenic or carcinogenic risk was estimated for current or future industrial workers or future construction workers.

Based on human health risk, the lead agency's current judgment is that the preferred alternative identified in this Proposed Plan, or one of the other measures considered in the Proposed Plan, is necessary to protect public health or welfare or the environment from actual or threatened releases of hazardous substances into the environment.

## 5.0 REMEDIAL ACTION OBJECTIVES

The RAOs for OU 10 are to:

1. Prevent future on-installation residential exposure to impacted soils; and
2. Prevent future on-installation potable groundwater use.

## 6.0 RESPONSE ACTION

After this Proposed Plan has been reviewed during the public comment period and public comments have been evaluated, the preferred alternative for OU 10, the basis for selection, performance expectations, and contingency planning will be presented in a ROD. A Responsiveness Summary that addresses public comments will also be incorporated into the ROD.

## 7.0 SUMMARY OF REMEDIAL ACTION ALTERNATIVES

Two remedial action alternatives were developed and evaluated in the FS with respect to effectiveness, implementability, cost, and meeting RAOs. Costs include capital, annual operation and maintenance (O&M), and total present worth (PW). (Total PW represents the sum of capital and O&M costs discounted to a base year. Total PW allows a comparison of alternatives with expenditures made in different periods.) These remedial action alternatives are briefly described below.

### Alternative 1: No Action

CERCLA requires that "No Action" be evaluated to establish a baseline for comparison to other remedial alternatives. No action leaves the impacted soils in place without measures to prevent exposure.

The only cost included was for the mandatory CERCLA five-year reviews. The estimated costs were based on a 20-year period and a 5 percent annual discount rate.

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|---|---|
| Estimated Capital Cost: | $0 |
| Estimated Five-Year Review Cost: | $11,300 |
| Estimated Total PW Cost: | $11,300 |

### Alternative 2: Institutional Controls

Institutional controls are non-engineered, legal measures to limit exposure. The OU 10 land use will

be solely for industrial purposes until conditions allow for unlimited use and unrestricted exposure. Institutional controls will be attached to the property deed to restrict groundwater use and prohibit residential or childcare-related land use, should the property change ownership in the future.

Alternative 2 also includes a vegetative cover over the OU 10 surface to limit potential future migration to the storm sewer system.

The estimated costs include a 20-year monitoring period, 5-year reviews, annual inspections, and a 5 percent annual discount rate.

| | |
|---|---|
| Estimated Capital Cost: | $5,000 |
| Estimated O&M: | $61,070 |
| Estimated Total PW Cost: | $66,070 |

## 8.0 EVALUATION OF ALTERNATIVES

This section describes the nine CERCLA evaluation criteria and summarizes the more detailed analysis presented in the FS for the two remedial action alternatives. The evaluation includes threshold criteria (requirements which must be met), balancing criteria (used to weigh trade-offs), and modifying criteria (anticipated agency and public acceptance).

### Overall Protection of Human Health and the Environment

Overall protection of human health and the environment is the primary objective of remedial action. Alternative 1 does not satisfy the protectiveness criterion since it does not limit potential exposure at OU 10. Alternative 2 limits exposure through institutional controls and provides annual inspections to confirm that conditions remain protective.

### Compliance with Applicable or Relevant and Appropriate Requirements

Chemical-specific applicable or relevant and appropriate requirements (ARARs) were not identified for soil, but industrial RBCs were to be considered criteria. Both alternatives leave constituents in place above industrial RBCs. However, Alternative 2 provides for restricted access and limits exposure. Federal and state MCLs were identified as chemical-specific ARARs for groundwater. As summarized in Section 4.0, MCLs were not exceeded.

Location-specific ARARs include state and federal endangered species acts. As noted, OU 10 has little habitat available for ecological receptors. Endangered plants, animals, or insects have not been observed at OU 10.

### Long-Term Effectiveness and Permanence

Alternative 1 is not effective because exposure to soils above industrial RBCs on the installation is not restricted. Under Alternative 2, institutional controls can be very effective in limiting exposure and, therefore, in managing risk. Annual inspections are required as part of Alternative 2 to ensure continued effectiveness.

### Reduction in Toxicity, Mobility, and Volume through Treatment

Treatment is not provided by either alternative. Therefore, constituent toxicity and volume remain unchanged. With Alternative 2, constituent mobility is reduced by maintaining the existing gravel cover over impacted soils. The potential for future soil migration through the storm sewer to Falling Creek Tributary is reduced with Alternative 2.

### Short-Term Effectiveness

Short-term effectiveness is used to evaluate risk to on-site workers and the nearby community during remedial action implementation. This criterion does not apply to Alternative 1 in the absence of any construction. Under Alternative 2, institutional controls are administrative restrictions and are effective immediately. Alternative 2 is not expected to adversely impact workers or pose a risk to the community.

### Implementability

Alternative 1 is simpler to implement. No construction, specialized equipment, or materials are used. Only agency approval of five-year reviews is required. With Alternative 2, institutional controls will require some coordination with USEPA, VDEQ, and local/county

agencies. However, institutional controls should be straightforward to implement.

**Cost**

The cost comparison is based on total PW, which includes capital and O&M costs. PW costs were calculated using a 5 percent annual discount rate and 20-year timeframe for 5-year reviews. Alternative 1, No Action, has a lower cost than the institutional controls provided with Alternative 2.

| | |
|---|---|
| Alternative 1 Total PW Cost: | $11,300 |
| Alternative 2 Total PW Cost: | $66,070 |

**Regulatory Agency Acceptance**

Alternative 1 does not prevent potential exposure or provide annual inspections to ensure that conditions remain protective. Therefore, Alternative 1 is not preferred. USEPA and VDEQ support Alternative 2 because it is considered protective of human health and the environment. As part of Alternative 2, annual inspections will be conducted to confirm that RAOs are being met.

**Community Acceptance**

Community acceptance of the preferred alternative will be evaluated based on comments received during the public comment period for this Proposed Plan. A Responsiveness Summary will be included in the OU 10 ROD. Community acceptance is anticipated, since Alternative 2 should be protective of public health.

## 9.0 SUMMARY OF THE PREFERRED ALTERNATIVE

Based on the evaluation of alternatives, DLA considers Alternative 2, institutional controls and a vegetative cover, to be the preferred alternative to address impacted soils near former Building 68 (designated as OU 10). Alternative 2 is selected because it:

- Is protective of human health and the environment
- Limits exposure to soil constituents above industrial RBCs
- Provides annual inspections to document that conditions remain protective
- Reduces potential constituent mobility and potential migration through the storm sewer to Falling Creek Tributary (through maintenance of the gravel cover)
- Is straightforward to implement with no adverse short-term impacts
- Is expected to have regulatory agency and community acceptance

Alternative 2 consists of the following institutional controls and requirements:

- Implementing a deed restriction that prohibits groundwater use installationwide for potable purposes and for residential or childcare purposes, if the property is transferred
- Notification to USEPA and VDEQ of major land use changes at OU 10
- A five-year CERCLA statutory review to ensure that the chosen remedy continues to provide adequate protection of human health and the environment (until soil constituents no longer remain at concentrations that preclude unlimited use and unrestricted exposure or until regulatory requirements for five-year reviews are terminated)
- The cover must be maintained to limit potential future transport of impacted soils through the storm sewer to Falling Creek Tributary
- A pre-construction assessment by the DSCR environmental group in the event that excavation activities are planned
- In the event that impacted soils are removed in the future, they will be disposed of in a permitted facility and replaced with clean fill to prevent exposure
- In the event that impacted soils are disturbed in the future, erosion and sediment controls will be required to prevent migration to the

storm sewer, and inspections will be conducted annually

## 10.0 COMMUNITY PARTICIPATION

DLA provides information to the public regarding ongoing Environmental Restoration Program activities at DSCR through public meetings and publication of a Community Newsletter and Fact Sheets, the Administrative Record, the Community Involvement Plan (September, 2003), and announcements in the *Richmond Times Dispatch*. DLA encourages the public to gain a more comprehensive understanding of OU 10 and CERCLA activities that have been conducted at the installation.

A DSCR Restoration Advisory Board (RAB) was established in January 2002. The RAB currently holds monthly meetings to exchange information among community members and government agencies. These meetings are generally the second Monday of each month. RAB meetings are open to the public. For additional information regarding RAB meeting schedules and locations, contact the DSCR Public Affairs Officer at (804) 279-5896.

The public comment period for this Proposed Plan offers the public an opportunity to provide input to the OU 10 remedial action planning process. The Proposed Plan is available in the Administrative Record (see "Dates to Remember" on page 1 of this Proposed Plan). The public comment period will begin on **X, 2006** and end on **Y, 2006**. A public meeting will be held at 7:30 p.m. on **Z, 2006**, at the **Bensley Community Center** to provide an additional opportunity for public comments on the Proposed Plan. All interested parties are encouraged to attend and learn more about the OU 10 alternatives developed and the elements of the preferred alternative.

## Glossary of Terms

Specialized terms used in this Proposed Plan are defined below:

**Administrative Record** – Documents made available to the public including reports used in making remedial action decisions.

**Applicable or Relevant and Appropriate Requirements (ARARs)** – The federal and state laws that a selected remedy should meet. These requirements may vary among sites and alternatives.

**Human Health Baseline Risk Assessment (HHBRA**) – An evaluation of the potential carcinogenic health risks and non-carcinogenic hazards associated with potential exposure of susceptible current and future human or ecological receptors to site-related constituents in environmental media (i.e., soil, groundwater, air, surface water, and sediment) assuming no action is taken to remedy conditions at the site.

**Cleanup** – Action taken to mitigate a release or threatened release of hazardous substances that could affect public health and/or the environment. The term "cleanup" is often broadly used to describe response actions including phases of remedial and removal actions.

**Constituent of Concern (COC)** – If the chemical-specific risk estimate for a COPC is greater than an acceptable risk level (i.e., a hazard index greater than 1 or a cancer risk greater than $10^{-5}$), then the chemical is selected as a constituent of concern or COC. Risk-based cleanup levels are developed for COCs.

**Constituent of Potential Concern (COPC)** – A chemical that is selected for the risk assessment process because it exceeds a screening value.

**Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)** – A federal law passed in 1980 and subsequently amended. CERCLA is commonly referred to as the Superfund Law. The act created a special tax (on the petroleum refining and chemical manufacturing industries). The tax proceeds were placed in a trust fund to investigate and clean up abandoned or uncontrolled hazardous waste sites that endanger public health, welfare, or the environment. The taxing and funding provisions of the Act lapsed in 1995 and have not been renewed by Congress.

**Five-Year Review** – A process to evaluate the remedial action performance and determine whether conditions remain protective of human health and the environment. CERCLA as amended and the National Contingency Plan specify that remedial actions that result in hazardous substances, pollutants, or contaminants remaining at a site above levels that allow for unlimited use and unrestricted exposure be reviewed every five years to ensure protection of human health and the environment.

**Groundwater** – Water found beneath the ground surface that fills pores in earth materials such as sand, soil, gravel, or rock. In a productive water-bearing unit (known as an "*aquifer*"), groundwater occurs in sufficient quantities that it can be extracted for drinking water, irrigation, and other purposes.

**Hazard Index (HI)** – For each non-carcinogenic COPC and exposure pathway included in the risk assessment, the chemical-specific hazard quotients are summed to evaluate cumulative risk for a specific receptor. The sum of the hazard quotients is the hazard index.

**Hazard Quotient** – The ratio of the daily dose of a non-carcinogenic, site-related chemical due to onsite exposure divided by the reference dose for that chemical. The reference dose represents the daily chemical intake that is not expected to cause adverse effects.

**Hazard Ranking System (HRS)** – A scoring system used by USEPA to evaluate potential relative risks to public health and the environment resulting from releases or threatened releases of hazardous substances. This score is the primary factor used to decide whether a hazardous waste site should be promulgated to the National Priorities List.

**Maximum Contaminant Level (MCL)** – The maximum permissible level of a contaminant in a public water system. MCLs are defined in the Code of Federal Regulations (40 CFR 141, the National Primary Drinking Water Regulations that implement portions of the Safe Drinking Water Act). MCLs are legally enforceable groundwater standards.

**National Priorities List (NPL)** – The USEPA's list of uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial response. The list is based primarily on the score that a site receives under the HRS. The USEPA is required to update the NPL at least once per year.

**Present Worth Analysis** – A method to evaluate expenditures that occur over different periods. By discounting all costs to a common base year, the costs for different remedial action alternatives can be compared. When calculating present worth costs for Superfund sites, capital as well as operation & maintenance (O&M) costs are included.

**Proposed Plan** – A public participation requirement of CERCLA, in which the lead federal agency summarizes the preferred cleanup strategy, the rationale for the preference, the alternatives evaluated in the remedial investigation/feasibility study, and any ARAR waivers proposed for site cleanup. The Proposed Plan solicits public review and comment on all alternatives under consideration.

**Public Comment Period** – A prescribed period during which the public may review and comment on various CERCLA remedial action documents. For example, a minimum 30-day comment period is mandated in the National Contingency Plan to allow interested community members to review and comment on a Proposed Plan. Advance notification of the Public Comment Period dates must be published in a local newspaper.

**Record of Decision (ROD)** – A public document that identifies the selected remedy, the final remedial action objectives (RAOs), measures to achieve RAOs, the basis for the decision, remedial action performance expectations, metrics to assess RAO progress, and a contingency plan to address unanticipated performance concerns. The ROD is based on the information and technical analysis generated during the remedial investigation/feasibility study, consideration of applicable or relevant and appropriate requirements (ARARs), and consideration of public comments. All information used to make a final remedy decision must be documented in the site Administrative Record.

**Remedial Action** – The means selected to achieve RAOs; the construction or implementation phase that follows the remedial design of the selected cleanup alternative at an NPL site.

**Remedial Investigation/Feasibility Study (RI/FS)** – Investigative and analytical studies performed as the basis for remedial action decision-making. The RI/FS is intended to:

- Gather information necessary to define the impacted media at and near a site; identify potentially exposed human and ecological receptors; and determine the type, magnitude, extent, and fate of constituents;
- Identify (or waive) regulatory requirements that will affect the remedial action selection and implementation;
- Establish remedial action objectives (RAOs) and cleanup criteria;
- Identify and screen remedial technologies and develop remedial action alternatives; and
- Conduct a detailed analysis of alternatives (including cost).

**Target Cleanup Level** – The acceptable risk-based concentration of a COC. On-site concentrations of COCs exceeding the target cleanup level require remediation.

**USEPA Region 3 Risk-Based Concentrations (RBCs)** – Chemical concentrations in water or soil corresponding to acceptable risk levels (a hazard quotient of 1 or an excess cancer risk of $1\times10^{-6}$). RBCs are used to screen chemicals and select COPCs.

## FOR MORE INFORMATION

For more information on the environmental program at DSCR or the Proposed Plan, please contact the following:

**DLA Contact:**

**Ms. Kim Turner**
Public Affairs Officer (DSCR-DSA)
Defense Supply Center Richmond
8000 Jefferson Davis Highway
Richmond, Virginia 23297-5000
email: Kim.Turner@dla.mil
Fax: (804) 279-6084

**USEPA Contact:**

**Ms. Trish Taylor**
Community Involvement Section (3HS43)
US Environmental Protection Agency, Region 3
1650 Arch Street
Philadelphia, Pennsylvania 19103
email: taylor.trish@epa.gov

**VDEQ Contact:**

**Mr. James Cutler**
Virginia Department of Environmental Quality
Office of Remediation Programs
629 East Main Street, 4th Floor
Richmond, Virginia 23219
email: jlcutler@deq.virginia.gov

### COMMUNITY PARTICIPATION

Comment on the Defense Logistic Agency's OU 10 Proposed Plan at the public meeting or fax, email, or mail your comments to:

**Ms. Kim Turner**
Public Affairs Officer (DSCR-DSA)
Defense Supply Center Richmond
8000 Jefferson Davis Highway
Richmond, Virginia 23297-5000
email: Kim.Turner@dla.mil
Fax: (804) 279-6084
All comments must be postmarked by **Y, 2006**.

### DATES TO REMEMBER

**Z, 2006**
The public meeting for comments on the Proposed Plan will be held starting **7:30 p.m.** at the

Bensley Park and Community Center
2900 Drewrys Bluff Rd
Richmond, VA 23237

All comments must be postmarked by **Y, 2006**, for consideration.

**COMMENTS:**_____

## Mailing Coupon

If you would like to be added to the DSCR mailing list and receive copies of future newsletters and Fact Sheets, please fill out the coupon below and mail it to:

**Ms. Kim Turner**
Public Affairs Officer (DSCR-DSA)
Defense Supply Center Richmond
8000 Jefferson Davis Highway
Richmond, Virginia 23297-5000

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